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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,331	03/14/2001	Philip J. Lin	TEL4597P0061US	3858

7590 07/16/2002  
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CHICAGO, IL 60606

EXAMINER

KIANNI, KAVEH C

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/808,331

**Applicant(s)**

LIN, PHILIP J.

**Examiner**

Kevin C Kianni

**Art Unit**

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 1-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-56 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-9, drawn to an apparatus for coupling  $N \times N$  outputs having a plurality of separate, substantially identical static  $K \times K$  interconnected networks with  $N^2 \times N^2$  general connection of modules classified in class 385, subclass 17.
  - II. Claims 10-19, drawn to an apparatus for independent coupling  $N \times N$  outputs having a plurality of separate, substantially identical static interconnect modules each with  $K^2 \times K^2$  while each module having connectivity of  $(N/K)^2$  classified in class 385, subclass 16.
  - III. Claims 20-33, drawn to an apparatus for coupling ( $N \times N$  or  $M \times M$ ) outputs having  $N \times N$  interconnected networks while ( $K < N$ ) classified in class 385, subclass 15.
  - IV. Claims 34-40, drawn to an apparatus formed of interconnect modules having  $N^2 \times N^2$  interconnectivity while each module having  $(N/K)^2$  connectivity and each comprising  $K^2 \times K^2$  fibers classified in class 385, subclass 28.
  - V. Claims 41-44, drawn to signal coupling network for coupling any of  $N_1 \times N_2$  outputs having substantially identical static  $K \times K$  interconnected

networks with  $K^2 \times K^2$  general connection of modules while ( $K < N$ )  
classified in class 385, subclass 27.

- VI. Claims 45-49, drawn to a method for coupling  $L$  input  $\times N$  outputs having first plurality of substantially identical static  $K \times K$  modules for coupling interconnected networks of  $K^2 \times K^2$  outputs while each module connectivity has  $L/K \times N/K$  connectivity classified in class 385, subclass 31.
- VII. Claims 50-56, drawn to a method of an interconnect network for coupling 1 input  $\times N$  output having a first modular  $K \times K$  interconnect having  $K^2$  signal carrier with  $K < L$  and  $K < N$  establishing  $(L/K \times N/K)$  first modular interconnects and second  $L \times N$  modular connect having a  $L \times N$  signal carrier in class 385, subclass 39.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I-VII are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be shown: (1) that the apparatus as claimed is not an obvious apparatus for making the product and the apparatus can be used for making a different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP § 806.05(g)). In this case the group invention 1, Claims 1-9, drawn to an apparatus for coupling  $N \times N$  outputs having a plurality of separate, substantially identical static  $K \times K$  interconnected networks with  $N^2 \times N^2$  general connection of modules; while the group invention II,

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Claims 10-19, drawn to an apparatus for independent coupling  $N \times N$  outputs having a plurality of separate, substantially identical static interconnect modules each with  $K^2 \times K^2$  while each module having connectivity of  $(N/K)^2$ ; and the group invention III drawn to an apparatus for coupling  $(N \times N \text{ or } M \times M)$  outputs having  $N \times N$  interconnected networks while  $(K < N)$ ; while the group invention IV drawn to an apparatus formed of interconnect modules having  $N^2 \times N^2$  interconnectivity while each module having  $(N/K)^2$  connectivity and each comprising  $K^2 \times K^2$  fibers; contrasted with the group invention V, Claims 41-44, drawn to signal coupling network for coupling any of  $N_1 \times N_2$  outputs having substantially identical static  $K \times K$  interconnected networks with  $K^2 \times K^2$  general connection of modules while  $(K < N_1)$ ; contrasted with the group invention VI, Claims 45-49, drawn to a method for coupling  $L$  input  $\times N$  outputs having first plurality of substantially identical static  $K \times K$  modules for coupling interconnected networks of  $K^2 \times K^2$  outputs while each module connectivity has  $L/K \times N/K$  connectivity; while the group invention VII, Claims 50-56, drawn to a method of an interconnect network for coupling 1 input  $\times N$  output having a first modular  $K \times K$  interconnect having  $K^2$  signal carrier with  $K < L$  and  $K < N$  establishing  $(L/K \times N/K)$  first modular interconnects and second  $L \times N$  modular connect having a  $L \times N$  signal carrier classified in different class/subclasses.

#### ***Contact Information***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Cyrus Kianni whose telephone number is (703) 308-1216.

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The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (703) 308-4881.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-7722, (for formal communications intended for entry)

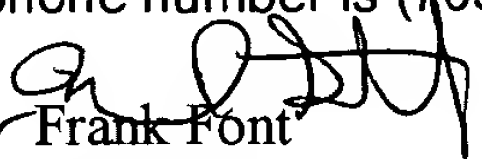
**or:**

(703) 308-7721, (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand delivered responses should be brought to Crystal Plaza 4, 2021 South  
Clark Place, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

Kaveh Cyrus Kianni  
Patent Examiner  
Group Art Unit 2877

  
for Frank Font  
Supervisory Patent Examiner  
Group Art Unit 2877

July 1, 2002